DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

IMPROVED TARGET BITRATE ESTIMATOR, PICTURE ACTIVITY AND BUFFER MANAGEMENT IN RATE CONTROL FOR VIDEO CODER

the specification of which is attached hereto unless the following is entered:

was filed on	as United States Application Number or PCT International Application Number	and was amended on (if applicable)
· · · · · · · · · · · · · · · · · · ·		

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

PRIOR FOREIGN APPLICATION(S)

I hereby claim foreign priority benefits under 35 USC §119(a-d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application(s) for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed:

Application Number	Country	Filing Date (day/month/year)	Priority Not Claimed

PROVISIONAL APPLICATION(S)

I hereby claim the benefit under 35 USC §119(e) of any United States provisional application(s) listed below:

Application Number	Filing Date	,

PRIOR UNITED STATES APPLICATION(S)

I hereby claim the benefit under 35 USC §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 USC §112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

Application Number	Filing Date	Status (patented, pending, abandoned)

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert L. Hails, Jr. (Reg. No. 39,702) of KENYON & KENYON with an office located at 1500 K Street, N.W., Suite 700, Washington, D.C., 20005-1257, telephone (202) 220-4200 and all other practitioners identified at:

customer number 23,838; customer number 25,693; customer number 26,646; and

Richard Lutton, Jr. (Reg. No. 39,756), Edward Scott, IV (Reg. No. 36,000), Mark Aaker (Reg. No. 32,667), Richard Liu (Reg. No. 34,377), Kevin Saul (Reg. No. 39,474), Brian Way (Reg. No. 47,171), Helene Workman (Reg. No 35,981), of Apple Computer, Inc. with an office located at One Infinite Loop, Cupertino, California, 95014 and Alexey Zelditch (Reg. No. 45,293) of Apple Computer, Inc. with an office located at Two Infinite Loop, Cupertino, California, 95014

with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Direct telephone calls to:

Robert L. Hails, Jr. (Reg. No. 39,702) (202) 220-4200 Send correspondence to:

The address designated for customer number 23,838.

I hereby declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issuing thereon.

Full name of joint	Last Name	First Name	Middle Name
inventor	HASKELL	Barin	Geoffry
Residence	City	State or Country	Country of Citizenship
	Mountain View	Callfornia	U.S.A.
Post Office	Street	City	Country & Zip Code
Address	1190 Fairbrook	Mountain View	California, USA 94040
Signature	1 1 - 0	Date	
Barin & Harrell		3-19-0	·

Full name of joint inventor	Last Name	First Name	Middle Name
	DUMITRAS	Adriana	
Residence	City	State or Country	Country of Citizenship
	Sunnyvale	California	Canada
Post Office Address	Street #2403	City	Country & Zip Code
	250 West El Camino Real	Sunnyvale	California, U.S.A. 94087
Signature		Date	
Admitter			3/19/2004

Full name of joint inventor	Last Name	First Name	Middle Name
	NORMILE	James	
Residence	City	State or Country	Country of Citizenship
	Los Altos	California	USA
Post Office Address	Street	City	Country & Zip Code
	1725 Esberg Road	Los Altos	California, U.S.A. 94024
Signature		Date	
Jam Mor	evile	3/19/ 2504	

Full name of joint inventor	Last Name	First Name	Middle Name
	WU	Hsi-Jung	
Residence	City	State or Country	Country of Citizenship
	San Jose	California	USA
Post Office Address	Street	City	Country & Zip Code
	4634 Catalina Drive	San Jose	Callfornia, U.S.A. 95129
Signature		Date	
1/h		3/19/2001	Ψ .

Full name of joint inventor	Last Name	First Name	Middle Name	
MARITO	NIE	Xiaochun		
Residence	City	State or Country	Country of Citizenship	
•	Cupertino	California	People's Republic of China	
Post Office Address	Street	City	Country & Zip Code	
	20587 Cedarbrook	Cupertino	California, U.S.A. 95014	
Signature		Date 3	Date 3/19/2.004	
A				

Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filling and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compets a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

PATENT Docket No. 2777 / 3293

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application:
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

PATENT Docket No. 2777 / 3293

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

IMPROVED TARGET BITRATE ESTIMATOR, PICTURE ACTIVITY AND BUFFER MANAGEMENT IN RATE CONTROL FOR VIDEO CODER

the specification of which is attached hereto unless the following is entered:

was filed on	as United States Application Number or PCT International Application Number	and was amended on (if applicable)
--------------	---	------------------------------------

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

PRIOR FOREIGN APPLICATION(S)

I hereby claim foreign priority benefits under 35 USC §119(a-d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application(s) for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed:

Application Number	Country	Filing Date (day/month/year)	Priority Not Claimed

PROVISIONAL APPLICATION(S)

I hereby claim the benefit under 35 USC §119(e) of any United States provisional application(s) listed below:

Application Number	Filing Date	
)		

PRIOR UNITED STATES APPLICATION(S)

I hereby claim the benefit under 35 USC §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 USC §112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

		·
Application Number	· Filing Date	Status (patented, pending, abandoned)

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert L. Hails, Jr. (Reg. No. 39,702) of KENYON & KENYON with an office located at 1500 K Street, N.W., Suite 700, Washington, D.C., 20005-1257, telephone (202) 220-4200 and all other practitioners identified at:

customer number 23,838; customer number 25,693; customer number 26,646; and

Richard Lutton, Jr. (Reg. No. 39,756), Edward Scott, IV (Reg. No. 36,000), Mark Aaker (Reg. No. 32,667), Richard Liu (Reg. No. 34,377), Kevin Saul (Reg. No. 39,474), Brian Way (Reg. No. 47,171), Helene Workman (Reg. No 35,981), of Apple Computer, Inc. with an office located at One Infinite Loop, Cupertino, California, 95014 and Alexey Zelditch (Reg. No. 45,293) of Apple Computer, Inc. with an office located at Two Infinite Loop, Cupertino, California, 95014

with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Direct telephone calls to:

Robert L. Hails, Jr. (Reg. No. 39,702) (202) 220-4200

Send correspondence to:

The address designated for customer number 23,838.

I hereby declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issuing thereon.

Full name of first or sole inventor	Last Name	First Name	Middle Name	
	PURI	Atul	l	
Residence	City	State or Country	Country of Citizenship	
	Mountain View	California	U.S.A.	
Post Office Address	Street 2400 West El Camino	City	Country & Zip Code	
	Real, #109	Mountain View	California, U.S.A. 94040	
Signature		Date		
Atul Pun		1 eb. 9, 2004		

Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information

which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.